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COLONEL EDWARD ORTON, JR.

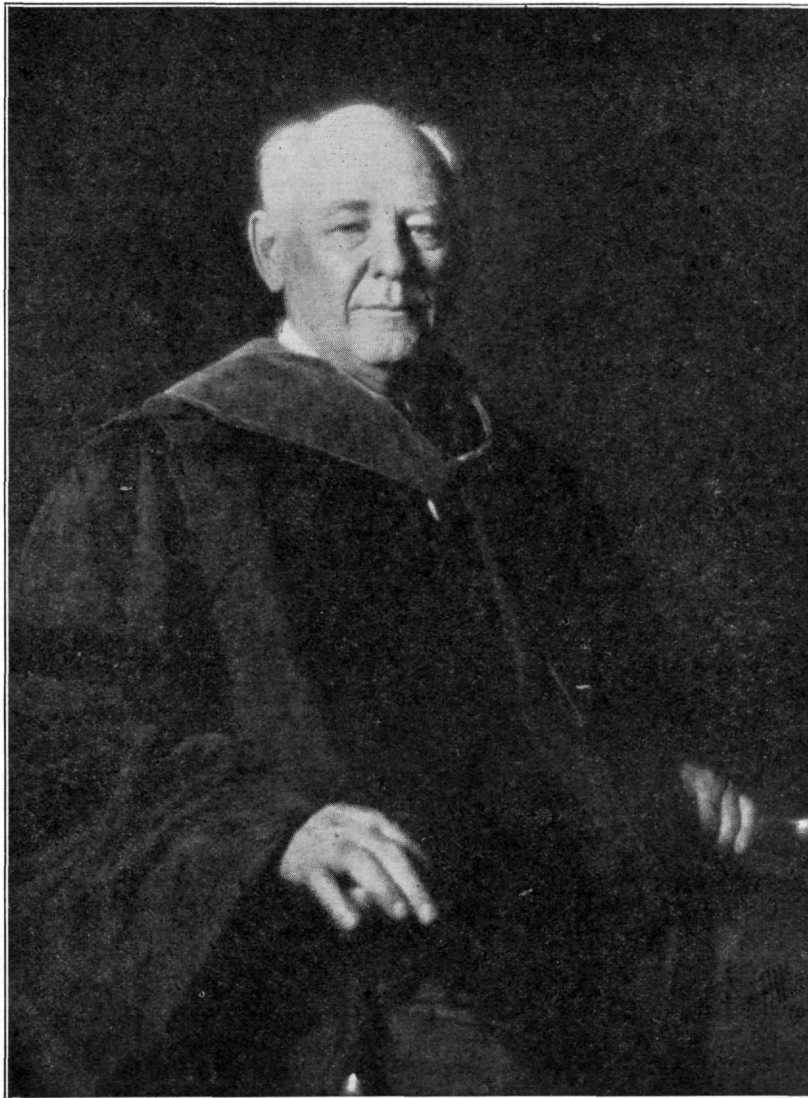
BY ROSS C. PURDY, *Secretary of The American Ceramic Society*

EDWARD ORTON, Jr., was born in 1863, of New England and New York lineage. His people were farmers with a good sprinkling of educators, clergy and professional men. His father was the first President of the Ohio State University. Edward Jr., was graduated from that school in 1884 as a Mining Engineer, and began his professional work as a surveyor in the coal mines.

After a few months of this, he entered the metallurgical field, serving as draftsman in steel works, chemist in blast furnaces and open hearth steel works, finally becoming superintendent of blast furnaces in Ohio and Virginia. In this latter capacity, he was the first in the United States (1888) to produce ferrosilicon, or iron alloys containing guaranteed high percentages of silicon.

In 1890, he left the metallurgical field, to enter clay manufacture, serving as superintendent of paving brick plants in Ohio and Kentucky, and as special contributor on clays, and manufacture of clay products for the Ohio Geological Survey. In 1893 he agitated the founding of a technical school for the study of clays and clayworking upon a scientific and engineering basis, and in 1894 succeeded in inducing the Legislature of Ohio to establish such a school, the first of its kind in the United States, in the Ohio State University. He became the first Director and remained the guiding genius of the school for twenty-two years (1916).

As a writer and research man in the Ceramic field, Professor Orton has a goodly list of articles and investigations to his credit. He has been of possibly greater value in inspiring and directing the researches and publications of others, for



COL. EDWARD ORTON, JR.

Has for many years been prominently connected with affairs of the Ohio State University. The first son of the first President of the University gave him an auspicious start in the business of being the first. His personal history as given in the Silver Jubilee number of the Journal of the American Ceramic Society is here given.

which he cannot of course be given credit in his own bibliography.

The idea of putting clayworking and ceramic operations in general upon a scientific basis, comparable in accuracy to those of metallurgy, under the title of Ceramic Engineering, was accepted slowly and reluctantly by the industries concerned, and also by the technical and engineering schools. Professor Orton has had the satisfaction of seeing his idea take firm root, and become an accepted branch of engineering training in a number of strong universities in the United States and in England.

He was the promotor and active spirit in organizing in 1898 the American Ceramic Society, which has become the internationally known exponent of the Ceramic Engineering profession.

He served as secretary of this organization for twenty years, until 1918, and as editor of its first ten volumes of reports.

In 1896, he began the manufacture upon a small scale of Standard Pyrometric cones, a device for kilns and industrial furnaces. This business grew steadily until a factory had to be erected in 1906 to take care of it. Professor Orton has owned, supervised and managed this business ever since its inception, without conflict with his educational and professional duties, and for some years it has been his chief financial dependence.

In 1899, upon the death of his father, Dr. Edward Orton, he succeeded him as State Geologist of Ohio, which position he filled until 1907. During his administration, he reorganized the Survey, and issued two volumes and nine bulletins of reports, mostly upon economic geology.

In 1902, Professor Orton was made Dean of the

College of Engineering, of the Ohio State University, and held this position with brief intermission until 1916.

For many years an ardent believer in the importance of military training, and foreseeing the part that the United States would play in the World War, Dean Orton took the training in 1916 in the Citizen's Military Training camp at Plattsburg, New York, and was commissioned a Major in the Quartermasters' Reserve Corps in January, 1917. Upon the opening of hostilities in April, 1917, he was ordered into active duty and assigned to the Motor Transport branch. He was promoted to Lieutenant Colonel in September, 1918. For his exceptionally meritorious services in the standardization of motor equipment he was awarded the Distinguished Service Medal. He was discharged in June, 1919, and at once re-commissioned as a Colonel on the Officers' Reserve Corps.

Returning to Columbus in 1919, Colonel Orton did not go back into educational work, but resumed supervision of his manufacturing business. In addition he bought and operated a farm, and afterwards soon began devoting his spare time to various forms of public service for the Chamber of Commerce and other organizations.

He was elected President of the Columbus Chamber of Commerce in 1921, and again in 1922. Under his administration the Chamber has enjoyed a period of vigorous constructive work and excellent material progress upon numerous public projects has been made.

Colonel Orton believes firmly in the engineering education, with its inflexible curriculum and its merciless insistence upon reasoning only from demonstrable facts of science as the best foundation for the development of mental power, no matter what profession may be the ultimate goal.

HIS WORK AS DEAN

His outstanding service to the University and to the State while Dean of the College of Engineering was the organization of the Experiment Station in 1912. The full fruition of the pioneer work by Professor Orton in this connection will come when the experiment station building is erected and equipped—a dream of years soon to be realized.

Under his direction the Engineering College kept pace with the demand for increased facilities and instructional force and the demand was made more urgent through contact with engineering societies and industries by members of the engineering faculty. This was a natural consequence of Dean Orton's consistent promotion of research.

COLONEL ORTON AS GEOLOGIST

Professor Orton succeeded his father as State Geologist in 1899, but several years earlier he had written reports on economic geology and industrial surveys. Indeed the writing of a bulletin on the clays of Ohio was his first contact with what he afterwards established as "Ceramics."

In 1894 he visited Colorado and took the time to climb Pike's Peak. In 1896 a chance visit gave him the opportunity to visit Georgetown in the Silver Plume district climbing and photographing. Gray's Peak was climbed on this occasion.

The very inaccessible and little frequented Estes Park had been constantly challenging him, not alone as a virgin field for geological studies but as a vacation sport, so after his appointment as State Geologist he entered Estes Park in 1902, spending a

week in the Mummy Range at the north end of the park. It was in the Elkanah Valley at the foot of Long's Peak that he found and was fascinated by the wonderful distinct work of extinct glaciers. It was to this place with "Mills Place" as headquarters that he went with camera, maps and surveying equipment to study the glacial moraines. After nearly a year of study of the data he obtained on this trip he felt that he understood a little something about the periodicity of the glaciers whose moraines were so beautifully preserved in that neighborhood.

At the spring meeting of Sigma Xi in 1905 he delivered an address in which it is said he gave the most authoritative and largest amount of exact data on glacial moraines of the Rocky Mountains ever produced. This address awakened such an interest that a party was organized in the summer of 1905 to make a more thorough study. The party consisted of Edward Orton Jr. (Geology), F. C. Caldwell (Electrical), Joseph N. Bradford (Architecture), Thomas H. Haines (Psychology), Albert M. Heller (Civil), Ellis Lovejoy (Ceramics), Embury A. Hitchcock (Mechanical) and Claude Clouser (Camp boy).

This party went into the comparatively unknown territory known vaguely as the "Wild Basin" to the south of Long Peak on the headwaters of the St. Urain River. Here they spent a week. They then went to Beaver Lake on the north side of Long's Peak, thus completing for Professor Orton the glacial conquest of valleys around Long's Peak and the eastern side of the range.

It was on June 29, 1905, that the party reached the top of a peak, 11,600 feet high, with a magnificent panorama of mountains encircling it for a sweep of 270 degrees. It was on this day that a mountain was named Mt. Orton, which name has been made official by the Federal and state surveys.

Learning in 1921 that the official maps designated this as Mount Orton, Dean Babcock was engaged to make a painting of the Wild Basin district, from Meadow Mountain, looking northwest, in which Mt. Orton would be in the center middle distance and the Continental Divide and the Long's Peak spur range would form the sky line and back ground.

This picture is a very successful portrait of the district and a most excellent painting. It will hang ultimately in the Edward Orton Memorial Library of Geology in Orton Hall.

HONORED BY GEOLOGICAL SOCIETY OF AMERICA

Professor Orton returned in 1906 prepared to thoroughly survey and make topographical maps of the Mills' Moraine and the east face of Long's Peak. This work was of a degree of accuracy favorably comparable with any of the government surveys. The work of 1906 was platted and fully studied and a paper presented in 1907 before the Geological Society of America. Because of the original and thorough work on the glacial moraines of that district disclosed by this paper, Professor Orton was elected a member of the Society, a singular and highly prized honor.

THE ORTON MEMORIAL LIBRARY

While State Geologist, Professor Orton secured legislature enactment making the University Library the depository of the books belonging to the

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COLONEL EDWARD ORTON, JR.

(Continued from page 13)

State Geological Survey. Thus began the collecting of what now is the most complete library of geological books and reports outside of Washington D. C. An exchange arrangement resulted in the acquiring of many books and this is being continued by the present State Geologist, Dr. John Bownocker.

Professor Orton purchased the large library of rare books collected by the late Dr. C. S. Prosser. To this he added the large library which his father, Dr. Edward Orton, had accumulated.

In 1917 Professor Orton proposed to fit up library rooms in Orton Hall as a memorial to his father. For this purpose he gave \$6,000, and to continue in the purpose he had he has, since 1920, been giving and will continue to give \$500 annually.

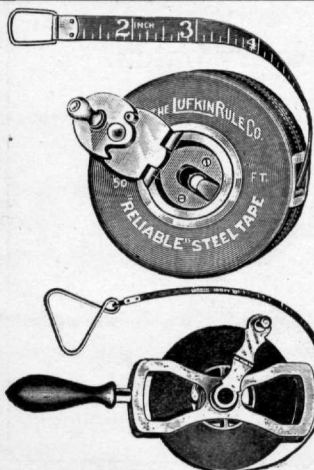
With the Orton fund Professor Bownocker has been able to acquire for the library many rare books and many European survey reports. Complete series of volumes of French, German, and Belgian reports are now in the library. The Transactions of the Geological Society of France is complete from 1840 and the prior series of fifteen volumes are assured.

Thus we have the first son of the University's first president a leading figure in metallurgy, ceramics, geology, civic affairs, and the University has no son of whom it can be more proud, and from whom it has received more real service.

Honored by Rutgers College last June with the degree of Doctor of Science because of his original and organization work as a teacher, dean, geologist and ceramist, his former pupils caused a full sized photograph to be made and presented to the Ceramic Department of Rutgers.

Founder of the world's first collegiate course in ceramic engineering and organizer of the American Ceramic Society, the world's leading ceramic, scientific and engineering society, he is known more widely as a ceramist than as a geologist or a business man, but the record he is now making as president of the Columbus Chamber of Commerce is being recognized.

No greater honor has come to Edward Orton, Jr. than the decoration with a Distinguished Service Medal for the same high quality and thorough service in the army which marked his work as a teacher, scientist and engineer.



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